

**Government of India
Ministry of Power
Central Electricity Authority
O/o Power System Wing
Sewa Bhawan, R. K. Puram, New Delhi-110066**

No. 100/1/EC(31)/2013-SP&PA/

Dated: February 25, 2013

To

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|---|---|
| 1. Shri S. Jayaraman
Member, CERC
Chanderlok Building,
36 Janpath,
New Delhi - 110001 | 2. Dr. Jaipal Singh
Member (E&C),
Central Electricity Authority
Sewa Bhawan, R.K. Puram,
New Delhi - 110066 |
| 3. Joint Secretary (Trans.),
Ministry of Power,
Shram Shakti Bhawan, Rafi Marg,
New Delhi - 110001 | 4. Shri I.A. Khan
Adviser, Planning Commission,
Yojana Bhawan, Parliament Street,
New Delhi – 110001 |
| 5. Director (Transmission)
Ministry of Power,
Shram Shakti Bhawan, Rafi Marg,
New Delhi – 110001 | 6. Shri I. S. Jha
Director (Projects), POWERGRID
Saudamini, Plot No. 2, Sector-29,
Gurgaon – 122001 |
| 7. Secretary, CERC
Chanderlok Building,
36, Janpath,
New Delhi-110001 | 8. Shri V. V. R. K. Rao
Former Chairman, CEA
B-9/C, DDA Flats, Maya Puri,
New Delhi -110064 |
| 9. Shri A. K. Mago
Former Chief Secretary(Govt. of Maha.),
C/o Dr. Rita Malhotra,
40, Pushpanjali, Vikas Marg Extension,
(opp. Anand Vihar Colony),
Delhi - 110092
(Tel. 9811088098). | |

Subject: Minutes of the 31st meeting of the Empowered Committee on Transmission held on February 18, 2013 at CERC, New Delhi.

Sir/Madam,

The 31st meeting of the Empowered Committee on Transmission, constituted in accordance with the guidelines for encouraging competition in the development of transmission projects, was held on February 18, 2013 under the Chairmanship of Shri S. Jayaraman, Member, CERC. Minutes of the meeting are enclosed herewith.

Yours faithfully,

(Ravinder)
Member (Power System)

Copy to:

- i) Shri R. N. Nayak, CMD, POWERGRID
'Saudamini', Plot No.2,
Sector – 29,
Gurgaon – 122 001 (Haryana)

- ii) Shri Y.K. Sehgal, COO(CTU), POWERGRID,
'Saudamini', Plot No.2,
Sector – 29,
Gurgaon – 122 001 (Haryana)

- iii) Shri S. K. Gupta, CEO, RECTPCL,
Core-4 SCOPE Complex,
7, Lodhi Road,
New Delhi – 110 003
(Fax-011-24102576)

- iv) Shri N. D Tyagi, CEO, PFC Consulting Ltd,
First Floor, Urjanidhi, 1 Barakhmba Lane,
New Delhi -110001
(Fax- 011-23456170)

- v) Shri A.K. Gupta, ED(Engg.),
National Thermal Power Corp. Ltd. (NTPC),
NTPC Bhawan, Core-7, Scope Complex,
Lodhi Road,
New Delhi-110003.

Minutes of the 31st meeting of the Empowered Committee on Transmission, constituted in accordance with the guidelines for encouraging competition in development of transmission projects, held on February 18, 2013 at CERC, New Delhi

- 1.0 List of Participants is enclosed at Annexure – I.
- 2.0 Chairperson, Empowered Committee (EC) welcomed the members and the participants to the meeting. The Minutes of the 30th meeting of the Empowered Committee circulated vide letter no. 100/1/EC(30)/2012-SP&PA/ 681-693 dated 1148-1160 was thereafter confirmed.
- 3.0 Proposal of POWERGRID to review the project selection procedure for Tariff Based Competitive Bidding (TBCB) for transmission sector.**
- 3.1 Member (PS), CEA said that CMD, POWERGRID vide letter dated 03.10.2012 has requested to review of the project selection procedure for TBCB.
- 3.2 COO(CTU), POWERGRID has pointed to the first schemes, viz., WRSS-II set B & C, awarded through competitive bidding to Reliance Power Transmission Ltd. long time ago (22.11.2007) and there is delay in completion of some of the elements of the scheme in spite of giving several time extensions. He also said that the EC in its earlier meetings have recommended - (i) to keep HVDC lines and stations out of TBCB route (24th meeting), and (ii) exemption of projects of estimated cost less than Rs 200 crore from TBCB and reviewing the cut off by the Government from time to time (29th meeting). He further suggested that only some selected transmission systems identified by the Empowered Committee should be offered for competitive bidding, or alternatively, joint venture route may be adopted for private sector participation.
- 3.3 Director (Projects), POWERGRID said that a number of foreign countries including China are participating in bids for development of inter-State transmission system. Allowing the control of important sub-stations, HVDC lines and high capacity corridors to foreign entities may adversely affect national security. Outage or tripping of any large capacity links or substation may have catastrophic effect on our strategic installations. The transmission system implemented by POWERGRID are based on transparent and competitive bids called for various packages, strictly speaking competition in procurement of various items is already taken care

of by POWERGRID even under the regulated tariff regime. Moreover, the cost incurred by POWERGRID is subject to prudence check by CERC and CAG.

- 3.4 GM, PFCCL, said that already enough care has been taken of by exempting certain works from TBCB by the Govt. and there is a need to preserve competitive environment in implementing transmission projects by providing for private sector participation through TBCB.
- 3.5 Chairperson (EC), and the Secretary, CERC said that the issues raised by CMD, POWERGRID are not in the domain of the Empowered Committee, as it was basically constituted to facilitate private sector participation in the transmission by identifying projects for implementation through TBCB. Chairman (EC) said that POWERGRID may take up the issue directly with the Government. He also opined that CEA may give its recommendations to the Government for consideration/ change in the tariff policy.
- 3.6 Chairperson (EC) observed that in the absence of concrete data to corroborate how the TBCB system for transmission sector is faring, it would be premature to comment on its effectiveness in the backdrop of relatively shorter period for which it has come into existence.

4.0 Review of scope of the scheme “Transmission system associated with DGEN TPS (1200 MW) Torrent Power Limited”.

- 4.1 Member (PS), CEA said that during the 29th Empowered Committee meeting, the scope of this scheme was fixed as following:

Transmission System	Estimated Line length	Estimated cost (Rs crore)
i) DGEN TPS-Vadodara 400 kV D/C (twin Moose)	100 km	120
ii) Two no. 400 kV line bays (GIS) at Vododara (PG) S/S		20
iii) Navsari-Bheestan 220 kV D/C line	15 km	12
iv) Two no. 220 kV line bays at Navsari (PG) S/S		4
v) Two no. 220 kV line bays at Bheestan (GETCO) S/S (new S/S at Popda(Bheestan)		4
Estimated cost (Rs crore)		160

In this regard, POWERGRID vide their letter dated 10.12.2012 has informed that the Vadodara and Navasari substations are existing substations owned by POWERGRID, whereas, the Popda (Bheestan) substation is being

constructed by GETCO. Since these works claim exemption from TBCB route as per MoP's communication dated 9-12-2010 issuing clarification to the para-7(1) of original Tariff policy, POWERGRID suggested that the bays at 400kV Vadodara (PG) substation and 220kV Navasari (PG) Substation may be implemented by POWERGRID and 220kV bays at Popda (Bheestan) substation may be implemented by GETCO.

Accordingly, the scope of the scheme may be modified as follows

Name of the Scheme: "Transmission system associated with DGEN TPS (1200MW) of Torrent Power Limited":

Revised Scope:

Transmission System	Estimated Line length	Estimated cost (Rs crore)
i) DGEN TPS-Vadodara 400 kV D/C (twin Moose)	100 km	120
ii) Navsari-Bheestan 220 kV D/C line	15 km	12
Estimated cost (Rs. Crore)		132

4.2 DGM, PFCCL said that the scheme was notified by MoP on 08-10-2012 and RfQ was issued w.e.f. 30-10-2012 with the last date of submission as December 14, 2012. As, there was proposal to change the scope of the scheme (w.r.t. the bay provisions), the last date for submission of response to RfQ was extended up to April 02, 2013 taking into consideration of the time for issue of minutes of EC and notification for revised scope by MoP.

4.3 The EC agreed with the above proposal and recommended that the scheme may be got re-notified accordingly.

5.0 Review of scope of the scheme "Transmission system associated with IPPs of Nagapattinam / Cuddalore Area – Package C"

5.1 Member (PS), CEA said that the scheme was approved in the 25th meeting of the Empowered Committee on Transmission and subsequently notified with following scope:

- Madhugiri – Narendra 765kV D/c line.
- Kolhapur – Padghe 765kV D/c line (one ckt. Via Pune).

This scheme was originally planned for evacuation of power from the generation projects coming up in Nagapattinam / Cuddalore area. However, as only one project i.e. ILFS is coming in this area, it was decided during the 29th meeting of the Empowered Committee that the 'Kolhapur – Padghe line' may not be needed as of now and may be deleted from this package. Also, the first element has been included as "Narendra (New) – Madhugiri 765kV

D/c line”, along with other transmission elements, in the scheme “Transmission System required for evacuation of power from Kudgi TPS (3x800 MW in Phase – I) of NTPC Limited”, which was also approved by the Empowered Committee in the same meeting. As such, the scheme is left with no transmission elements in its scope for implementation.

5.2 Therefore, it was proposed that the scheme may be got de-notified and the Empowered Committee agreed for recommending the same to the Government.

6.0 Revision of Standard Bid Documents (SBD) for aligning with the POC (Point of Connection) mechanism of sharing of transmission charges

6.1 Member (PS), CEA said that the existing RfQ, RfP and TSA documents for Tariff Based Competitive Bidding are based on the regional postage stamp method of sharing of transmission charges. The sharing of transmission charges of the ISTS is now based on the methodology of Point of Connection (PoC) after the implementation of the new mechanism from 01-07-2011. Using the existing SBD under the present PoC based mechanism is causing considerable difficulties in carrying out the bidding process. Now the charges are not to be recovered individually by each TSP, the “long term customers” now are all the utilities, drawing entities and generators using the ISTS (now known as DIC), the “lead long term customer” cannot be identified and existing SBD does not have provisions to accommodate these new concepts. In view of the above and other changes, the existing RfQ/RfP and TSA forming part of SBD need to be revised urgently so that the bidding of the schemes already in process or pipeline is not delayed.

6.2 Member (PS), CEA further said that a draft amendment in the SBD has been submitted to MoP. This matter was taken up in previous meetings of the EC also, wherein, Chairperson, EC stated that MoP should expedite the modifications to the SBD (RfP and TSA) aligning with the PoC mechanism. The Committee may discuss that how to proceed with new projects in the absence of revised SBDs.

6.3 The BPC’s (RECTPCL and PFCCL) informed that most of the projects that are under bidding process and have reached RfP/shall soon reach RfP stage, and requested for revising the SBD documents on an urgent basis.

6.4 Chairperson (EC) said that BPCs may proceed with RfQ/RfP process based on the existing SBDs and the amendments may be issued in the RfQ/RfP documents for the ongoing projects, as and when the revised SBDs are issued by the MoP. They may also inform the prospective bidders that the relevant provisions in the RfP documents would be revised based on the amendments as and when issued by the Government.

6.4 Chairman (Empowered Committee) said that the Government may expeditiously revise the Standard Bid Documents.

7.0 Inter-State works of comprehensive scheme for Strengthening of Transmission System in NER & Sikkim (NERSSS-II):

7.1 This scheme was conceived as a consequence of Passighat proclamation in 2007 for strengthening of transmission and distribution system in Sikkim and the states of NER. In a meeting of NER constituents, held at Guwahati on 30-10-2012 to review the inter-state transmission works, the name and scope of the scheme for inter-state transmission system were decided as follows:

Name: “System Strengthening Scheme in NER-II (NERSSS-II)”.

Scope:

1. 2nd 400/220 kV, 315 MVA transformer at Balipara (PG)
2. LILO of 2nd ckt. of Silchar - Bongaigaon 400 kV D/c line at Byrnihat (MeECL)
3. NER PP (Biswanath Chariyalli) – Itanagar (Ar. Pradesh) 132 kV D/C line (Zebra conductor)
4. Silchar - Misa 400 kV D/c line (Quad) line
5. Replacement of existing 132/33kV, 2x10MVA ICT at Nirjuli by 2x50MVA ICT
6. Ranganadi HEP-Nirjuli (PG) 132kV D/c line with one ckt. to be LILLOed at Itanagar S/s (Ar. Pradesh) or routed via Itanagar
7. Imphal (PG) – New Kohima (Nagaland) 400kV D/c line (to be initially operated at 132kV)

7.2 Out of above, the first and fifth elements are exempted from TBCB as they are basically augmentation/ renovation work of the existing Sub-stations. So, the name and scope of the scheme to be implemented through tariff based competitive bidding, are fixed as follows:

Name of the Scheme: “NER System Strengthening Scheme - II (TBCB Part)”

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. crore)
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Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. crore)
(i) LILO of 2 nd ckt. of Silchar – Bongaigaon, 400kV D/c line at Byrnihat 400kV substation (of MeECL)	5	10
(ii) Biswanath Chariyalli (NER PP) – Itanagar, (Zebra conductor) 132 kV D/C	95	70
(iii) Silchar– Misa, 400kV D/c quad line	200	600
(iv) Ranganadi - Nirjuli 132 kV D/c line with one circuit loop-in-loop-out at Itanagar 132/33 kV sub-station	40	25
(v) Imphal - New Kohima 400 kV D/c line (to be initially operated at 132 kV)	150	300
Estimated Cost (Rs. crore)		1005

Note:

- CTU to provide 2 no. of 400kV line bays at Byrnihat 400kV substation (of MeECL)
- CTU to provide 2 no. of 132kV line bays each at Bishwanath Chariyalli (PGCIL), Nirjuli(PGCIL) and Imphal (PGCIL) S/Ss
- CTU to provide 2 no. of 400kV line bays each at Silchar (PGCIL) and Misa (PGCIL)
- CTU to provide Switchable line reactors, 1x80 MVAR at Misa ends of the each circuit of the Silchar– Misa 400kV D/c line
- CTU to provide 4 no. of 132kV line bays at Itanagar S/s (of DoP, Arunachal Pradesh)
- NEEPCO to provide 2 no. of 132 kV line bays at Ranganadi Switchyard
- CTU to provide 2 no. of 132kV line bays at its New Kohima S/s (of DoP, Nagaland)

7.3 The EC recommended the scheme for implementation through TBCB. EC also suggested that CTU may obtain firm commitment from MeECL, DoP Arunachal Pradesh, NEEPCO and DoP Nagaland for the bays as mentioned above.

8.0 Name of the Scheme: ‘HVDC Bipole Strengthening in Southern Region’

8.1 Member (PS), CEA stated that the Hyderabad – Pugalur HVDC Bipole in Southern Region scheme had been discussed in the earlier meetings of the Empowered Committee where clarifications/justifications were sought by the

members. Shri V.V. R. K. Rao pointed out that agenda circulated this time also does not specifically addresses the questions raised by him. Shri Rao handed over questioner to Member (PS) who assured that the queries raised by him would be included in the agenda next time.

- 8.2 Member (PS) further informed that in the recent standing committee meeting of power system planning for southern region, there was proposal to build a Raigarh (Chattisgarh) to Kanchipuram (Tamil Nadu) HVDC bi-pole with a view to meet the future demand in Southern region. Recently, the transmission planning criteria has been reviewed and the revised criteria has been published on 31-01-2013, which lays renewed emphasis on 'N-1' security criteria. The above plan for these HVDC bi-poles for Southern region needs to be reviewed from the point of view of the new planning criteria.
- 8.3 As suggested by POWERGRID, it was decided to defer the matter to the next meeting.

9.0 Name of the Scheme: 'Mangalore (UPCL) –Kasargode- Kozhikode 400 kV link'

- 9.1 This scheme was approved in the 35th meeting of the Standing Committee on Power System Planning of Southern Region held on 04.01.2013 with the following scope:

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
1. Mangalore(Udipi PCL) – Kasargode, 400kV quad D/C line	110 km	220
2. Kasargode - Kozhokode, 400kV quad D/C line	180 km	360
3. Establishment of 2x500 MVA, 400/220 kV GIS substation at Kasargode <u>400kV</u> – 400/220 kV ICTs : 2 no – Bus Reactor (63 MVAR): 2 no. – Line Bays : 6 – ICT bays : 2 – Space for bays : 4 <u>220 kV</u> – Line Bays : 6 – ICT bays : 2 – Space for bays : 6	1000 MVA	160

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
Estimated Cost Rs. crore		740

Note:

- CTU to provide 2 no. of 400 kV line bays at Kozhikode S/S
- UPCL to provide 2 no. of 400 kV bays at Mangalore (UPCL) switchyard

9.2 Director (Projects) POWERGRID pointed out that there is severe RoW problem in the area and CEA may take up the matter with the Government of Kerala that they will cooperate in implementation of the scheme. He further said that in case compensation for construction of line is sought for the land covered by the shadow of the conductors, the schemes would become unviable. He said that compensation only for the tower footing should be paid as is practice in other parts of the country.

9.3 The Empowered Committee recommended the scheme for implementation through TCB subject to the above commitment from the Kerala Government. EC also suggested that firm commitment from UPCL for providing 400 kV bays at Mangalore (UPCL) switchyard may be obtained, otherwise the bays may be included in the scope of the bidder.

10.0 Name of the Scheme: 'Transmission System associated with Lara STPS –I (2x800 MW)'

10.1 This scheme was approved in the 35th meeting of the Standing Committee on Power System Planning of Western Region held on 03.01.2013 with the following scope:

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
i) Lara STPS-I – Champa Pooling Station 400 kV D/c (quad) line	120	240
ii) Lara STPS-I – Raigarh Pooling Station (Kotra) 400 kV D/c line	20	25
Estimated Cost Rs. crore		265

Note:

- CTU to provide 2 no. of 400 kV bays each at Champa PS and Raigarh PS
- NTPC to provide the 4 no. of 400 kV line bays at Lara STPS- I switchyard

- 10.2 ED (Engg.), NTPC informed that the order for the Lara STPS units was placed on 13-Dec-2012 and the scheduled COD of Unit no.1 is June 2016. So, they would need startup power by about June 2015 to carry out the various tests related to 800 MW units. As the time period left for completion of the required transmission is less, therefore, he has requested the scheme to be implemented by POWERGRID under compressed time schedule so that NTPC generation is not bottled up.
- 10.3 The EC agreed to recommend the scheme to MoP for implementation by POWERGRID (CTU) under compressed time schedule.

11.0 Name of the Scheme: 'Transmission System associated with Darlipalli TPS (2x800 MW)'

- 11.1 This scheme was approved in the meeting of the Standing Committee on Power System Planning of Eastern Region held on 04.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
i) Darlipalli TPS – Jharsuguda P.S. 765kV D/c line	40	100
Estimated Cost Rs. crore		100

Note:

- CTU to provide 2 no. of 765kV bays at Jharsuguda P.S.
 - NTPC to provide the 2 no. of 765kV line bays at Darlipalli TPS
 - Further evacuation beyond Jharsuguda to be taken care of by POWERGRID.
- 11.2 ED (Engg.), NTPC informed that orders for this project would be placed in March 2013 and the scheduled COD of Unit no.1 is September, 2016. they would be needing startup power by about September, 2015. Since, the area falling under the proposed transmission line is fraught with RoW problems, NTPC requested to implement this small scheme by POWERGRID under compressed time schedule, so that their generation is not bottled up.
- 11.3 The EC agreed to recommend the scheme to MoP for implementation by POWERGRID (CTU) under compressed time schedule.

12.0 Name of the Scheme: 'Northern Region System Strengthening Scheme, NRSS - XXIX'

12.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line length (km)/ MVA	Estimated Cost (Rs. Crore)
i) LILO of both circuits of Uri – Wagoora 400 kV D/c line at Amargarh (on multi-circuit towers)	10	50
ii) Establishment of 7x105 MVA (1-ph.), 400/220 kV GIS substation at Amargarh <u>400kV</u> – Line Bays : 6 no. – 400/220 kV ICT : 7x105(1-ph.) – ICT bays : 2 no. – Line Reactor(50 MVAR) : 2 no. – Bus Reactor(63 MVAR) : 2 no. – Bus Reactor Bay : 1 no. – Space for line/ICT bays : 4 no. – Space for ICT: 1 no. <u>220 kV</u> – Line Bays : 6 no. – ICT bays : 2 no. – Space for line/ICT bays : 4 no.	630 MVA	170
iii) Jullandhar – Samba 400 kV D/c line	170 km	210
iv) Samba –Amargarh 400 kV D/c line routed through Akhnoor / Rajouri sector	250 km	520
Estimated Cost Rs. crore		950

Note:

- CTU to provide 2 no. of 400 kV bays at Jullandhar S/S
- CTU to provide 4 no. of 400 kV bays at and Samba S/S

- CTU to provide 2x50 MVAR line reactors at Samba end of the Samba –Amargarh 400 kV D/c line

12.2 The EC recommended the scheme for implementation through TBCB.

13.0 Name of the Scheme: 'Northern Region System Strengthening Scheme, NRSS – XXXI (Part – A)'

13.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)/ MVA	Estimated Cost (Rs. Crore)
i) Establishment of a 7X105MVA(1-ph.), 400/220 kV GIS substation at Kala Amb <u>400kV</u> – Line Bays : 4 no. – 400/220 kV ICT: 7x105(1-ph.) – ICT bays : 2 no. – Bus Reactor (80 MVAR) :2 no. – Bus Reactor Bay : 2 no. – Space for line/ICT bays : 4 no. – Space for ICT: 1 no. <u>220 kV</u> – Line Bays : 6 no. – ICT bays : 2 no. – Space for line/ICT bays : 4 no.	630 MVA	170
ii) LILO of both circuits of Karcham Wangtoo – Abdullapur 400 kV D/c line at Kala Amb (on multi-circuit towers)	5 km	20
iii) 40% Series Compensation on 400kV Karcham Wangtoo – Kala Amb quad D/c line at Kala Amb end		35
Estimated Cost Rs. crore		225

13.2 The EC recommended the scheme for implementation through TBCB.

14.0 Name of the Scheme: 'Northern Region System Strengthening Scheme, NRSS – XXXI (Part – B)'

14.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)/ MVA	Estimated Cost (Rs. Crore)
i) Kurukshetra – Malerkotla 400 kV D/c line	125 km	150
ii) Malerkotla – Amritsar 400 kV D/c line	180 km	220
Estimated Cost Rs. crore		370

Note:

- CTU to provide 2 no. of 400 kV bays each at Amritsar and Kurukshetra S/Ss
- CTU to provide 4 no. of 400 kV bays at the Malerkotla S/s

14.2 The EC recommended the scheme for implementation through TBCB.

15.0 Name of the Scheme: 'Northern Region System Strengthening Scheme, NRSS - XXXIII'

15.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
i) Ballabgarh – Greater Noida (New) 400 kV D/c line (5 km on multi-circuit towers from Ballabgarh S/s)	50+ 5 (M/c) km	100
ii) Establishment of 2x500 MVA, 400/220 kV GIS substation at Greater Noida(New) with a short circuit current rating of 50 kA. <u>400kV</u> – Line Bays : 2 no. – 400/220 kV ICT (2x500): 2 no.		160

<ul style="list-style-type: none"> - ICT bays : 2 no. - Bus Reactor(125 MVAR):1 no. - Bus Reactor Bay: 1 no. - Space for line/ICT bays : 4 no. - Space for ICT: 1 no. <p style="text-align: center;"><u>220 kV</u></p> <ul style="list-style-type: none"> - Line Bays : 6 no. - ICT bays : 2 no. - Space for line/ICT bays : 4 no. 		
Estimated Cost Rs. crore		260

Note:

- CTU to provide 2 no. of 400 kV bays at Ballabgarh S/S

16.2 The EC recommended the scheme for implementation through TBCB.

17.0 Name of the Scheme: 'ATS for Tanda Expansion TPS (2x660 MW)'

17.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013, with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
i) Tanda TPS – Sohawal 400 kV D/c line	80	100
ii) Sohawal – Lucknow (New) (PG) 400 kV D/c line	120	145
Estimated Cost Rs. crore		245

Note:

- CTU to provide 2 no. of 400 kV bays at Lucknow (New) S/S
- CTU to provide 4 no. of 400 kV bays at Sohawal S/S
- NTPC to provide 2 no. of 400 kV bays at Tanda TPS Switchyard

17.2 The EC recommended the scheme for implementation through TBCB.

18.0 Name of the Scheme: 'Establishment of Lucknow (PG) – Kanpur (New) (PG) 400 kV D/c line'

18.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crore)
i) Lucknow (PG) – Kanpur (New) (PG) 400 kV D/c line	90	135
Estimated Cost Rs. crore		135

Note:

- CTU to provide 2 no. of 400 kV bays each at Lucknow (PG) and Kanpur(New) S/Ss

- 18.2 COO(CTU), POWERGRID said that the line is being planned to improve reliability of the grid, as the loading on the 400kV Unnao - Panki S/c line remains critical causing constraint in transmitting power from eastern side of NR towards western side of NR. He further said that this line is also required from grid security point of view hence, the line may be urgently taken up for implementation under compressed time schedule by POWERGRID.
- 18.3 The EC agreed to recommend the scheme to MoP for implementation by POWERGRID (CTU) under compressed time schedule.

19.0 Name of the Scheme: ‘Panchkula – Patiala 400 kV D/c line’

- 19.1 This scheme was approved in the 31st meeting of the Standing Committee on Power System Planning of Northern Region held on 02.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. crore)
i) Panchkula – Patiala 400 kV D/c line (including portion of the line on multi-circuit towers)	120	190
Estimated Cost Rs. crore		190

Note:

- CTU to provide 2 no. of 400kV bays each at Panchkula (PG) and Patiala (PG) S/Ss

- 19.2 COO(CTU), POWERGRID said that the line is being planned to mitigate the present constraints observed during the paddy season. Further, as this line would also help improve grid security, he proposed that this line may be urgently taken up by POWERGRID under compressed time schedule.
- 19.3 The EC agreed to recommend the scheme to MoP for implementation by POWERGRID (CTU) under compressed time schedule.

20.0 Name of the Scheme: 'Strengthening of ISTS system in Gujarat'

20.1 This scheme was approved in the 35th meeting of the Standing Committee on Power System Planning in Western Region held on 03.01.2013 with the following scope.

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost(Rs. Crores)
1. Saurashtra Pooling Station (near Chiradva) – Vadodara 765kV D/C line	270 km	1015
2. Saurashtra Pooling Station (near Chiradva) – Halvad 400kV D/C line	40 km	50
3. LILO of both circuits of Mundra UMPP – Jetpur 400kV D/c (Triple conductor) at Saurashtra Pooling station (near Chiradva)	2x30 km	110
4. LILO of both circuits of Mundra UMPP – Limdi 400kV D/c (Triple conductor) at Saurashtra Pooling station (near Chiradva)	2x20 km	75
5. Establishment of 2x1500 MVA, 765/400 kV substation in Saurashtra area (near Chiradva) <u>765kV</u> – 765/400 kV ICTs : 2 no – Bus Reactor (125MVAR):1 no. – Line Reactor (240MVAR):2 no. – Line Bays : 2 – ICT bays : 2 – Space for spare bays: 8 <u>400 kV</u> – Line Bays : 10 – ICT bays : 2 – Space for spare bays: 8	3000 MVA	300
6. Kosamba – Vapi 400kV D/C line	140 km	180
Estimated Cost Rs. Crore		1730

Note:

- CTU to provide 2 no. of 765 kV line bays and line reactors at Vadodara (PG) S/S and 2 no. of 400 kV line bays at Vapi (PG) S/S

- GETCO to provide 2 no. of 400 kV bays each at Halvad (GETCO) S/S and Kosamba (GETCO) S/S

20.2 Chairperson (EC) observed that this is a very big scheme involving an investment of Rs. 1170 Crore. CTU should give a proper justification for such a big scheme required to be implemented without any addition of generation capacity in the area. The scheme was deferred to be taken up in the next meeting.

21.0 Commissioning dates:

The Committee asked CTU to provide required commissioning date for all the schemes approved by the EC to CEA. CTU should also provide commission dates for the schemes that are presently under bidding process to their respective BPC under intimation/ in consultation with CEA.

22.0 Bid Evaluation Committees (BECs)

With regard to schemes (Seven nos.) identified for implementation through TBCB, it was also decided that CEA would seek nominations for the representatives from the BPC's and concerned Regional Power Committees (RPCs) for constituting the respective Bid Evaluation Committees (BEC's). After getting the nominations, CEA would constitute the BECs and inform the Empowered Committee in the next meeting.

23.0 Briefing by BPCs on the schemes under bidding process

The status of the projects under bidding, as furnished by RECTPCL and PFCCL is enclosed at Annexure – II and Annexure – III.

List of participants of the 31st meeting of the Empowered Committee on transmission held on February 18, 2013

1. Shri S. Jayaraman, Member, CERC Chairperson
2. Shri Ravinder, Member (PS), CEA Member Secretary
3. Smt. Rita Acharya, Joint Secretary (Trans.), MoP Member
4. Shri I. S. Jha, Director (Projects), PGCIL Member
5. Shri Rajeev Bansal, Secretary, CERC Member
6. Shri V. V .R. K. Rao, former Chairman, CEA Member
7. Shri A.K. Mago, former Chief Secretary (Govt. of Mah.) Member

8. Shri K.K. Arya, Chief Engineer (I/C), CEA
9. Shri Pardeep Jindal, Director, CEA
10. Shri N.R.L.K. Prasad, Dy. Director, CEA

11. Shri Y.K. Sehgal, COO (CTU), PGCIL
12. Shri R.K. Chauhan, GM, PGCIL
13. Shri Dilip Rozekar, DGM (CTU), PGCIL
14. Smt. Manju Gupta, DGM(CTU), PGCIL

15. Shri Y. Juneja, GM, PFCCL
16. Shri R. K. Shahi, DGM, PFCCL
17. Shri V.K. Singh, AGM, REC

18. Shri A.K. Jha, Director (Tech.), NTPC
19. Shri A.K. Gupta, ED (Tech.), NTPC

Status of projects under bidding process by RECTPCL

1. System Strengthening in Southern Region for import of power from Eastern Region

The Amendment in Gazette Notification was issued on 16th October, 2013 and the Request for Qualification (RFQ) for the subject project was issued by RECTPCL on 26th October, 2012. In response to the RFQ, 12 bidders have submitted their Response.

The evaluation of Response to RfQ has been completed after one round of clarifications sought by the BPC from the Bidders. The final Bid Evaluation Committee meeting is scheduled on 26th February, 2013 for short-listing of Bidders. REC stated that following project details are still required from the CTU:

- Details of elements pre-required for commissioning
- Percentage of quoted transmission charges (as different elements have different time schedule)

CTU was advised to promptly provide the inputs so that REC can issue the RFP documents to short-listed bidders.

2. Transmission System required for evacuation of power from Kudgi TPS(3x800 MW in Phase-I) of NTPC Limited

The Gazette Notification issued on 16th October, 2012 and the RFQ was issued by RECTPCL on 5th December, 2012 after receiving inputs from the CTU on 30.11.2012. In response to the RFQ, 11 bidders have submitted their Response.

The evaluation of Response to RfQ has been completed after one round of clarifications sought by the BPC from the Bidders. The final Bid Evaluation Committee meeting is scheduled on 26th February, 2013 for short-listing of Bidders. REC stated that following project details are still required from the CTU :

- Details of elements pre-required for commissioning
- Percentage of quoted transmission charges (as different elements have different time schedule)

- Confirmation of name of Sub-station [Narendra (New) Sub-station/ Kudgi Sub-station]

The CTU was advised to promptly provide the inputs so that REC can issue the RFP documents to short-listed bidders.

3. Transmission System required for connectivity for NCC Power Projects LTD. (1320 MW)

The Gazette Notification was issued on 16th October, 2012. The RFQ was issued by RECTPCL on 17th December, 2012. In response to the RFQ, 6 bidders submitted their Response. The response received under RFQ is under evaluation and the Bid Evaluation Committee meeting is scheduled on 26th February, 2013. The RFP is expected to be issued by end of March, 2013.

4. ATS of Unchahar TPS

The Request for Qualification (RFQ) for the subject project was issued by RECTPCL on **11th January, 2013** after receiving inputs from the CTU on 06.01.2013 and the last date for submission of Response to RFQ is **26th Feb, 2013**.

5. Baira Siul HEP – Sarna 220 kV

The RFQ for the subject project was issued on 8th February, 2013 and the last date for submission of Response to RFQ is 25th March, 2013.

Status of projects under bidding process by PFCCL

1. Eastern Region System Strengthening Scheme – VII

Transmission Scheme Estimated Line	Length (km)	Estimated Cost (Rs. Cr.)
(i) Purulia PSP(WB) – Ranchi (PG) 400kV D/c line	140	170
(ii) Kharagpur (WBSTCL) – Chaibasa (PG) 400kV D/c line	170	200
Estimated cost (Rs crores)		370

- SPV in the name of “Purulia & Kharagpur Transmission Company Limited” incorporated on December 15, 2013.
- RfQ notification published on December 28, 2013 with last date of submission February 11, 2013.
- Seven (7) bidders submitted their Response to RFQ by the due date & time i.e. February 11, 2013 up to 15:00 Hrs. and was opened at 15:30 Hrs. by the Bid Evaluation Committee in the presence of the Bidders.

1. Power Grid Corporation of India Limited
2. Sterlite Grid Limited
3. L & T Infrastructure Development Projects Limited
4. Techno Electric and Engineering Company Limited & Kalpataru Power Transmission Limited Consortium
5. Elecnor S.A., Spain
6. Jyoti Energy Limited
7. Reliance Power Transmission Limited

- Evaluation of the Response to RFQ in progress.

2. Part ATS of RAPP U-7&8 in Rajasthan

Transmission Scheme Estimated Line	Length (km)	Estimated Cost (Rs. Cr.)
RAPP - Shujalpur 400kV D/C line	260	310
Estimated cost (Rs crores)		200

- SPV in the name of “RAPP Transmission Company Limited” incorporated on December 20, 2013.
- RfQ notification published on January 10, 2013 with last date of submission February 22, 2013.

3. Transmission System for Patran 400 kV S/S

Transmission Scheme Estimated Line	Length (km)	Estimated Cost (Rs. Cr.)
(i) Creation of 2x500 MVA, 400/220 kV Substation at Patran		100
(ii) LILO of both circuits of Patiala-Kaithal 400kV D/c at Patran (Triple snow Bird Conductor)	30	100
Estimated cost (Rs crores)		200

- SPV in the name of “Patran Transmission Company Limited” incorporated on December 19, 2013.
- RfQ notification published on January 23, 2013 with last date of submission March 11, 2013.

4. Eastern Region System Strengthening Scheme – VI

Transmission Scheme Estimated Line	Length (km)	Estimated Cost (Rs. Cr.)
(i) Creation of 2x500 MVA, 400/220 kV GIS Substation at Darbhanga with space for future extension (1x500 MVA)		120
(ii) Creation of 2x200 MVA, 400/132 kV GIS Substation at Mothihari with space for future extension (1x200 MVA)		105
(iii) Muzaffarpur(PG)- Darbhanga 400 kV D/c line with triple snowbird conductor	70	100
(iv) LILO of Barh –Gorakhpur 400 kV D/c line at Mothihari, 400kV 2xD/C quad	50	200
(v) 2x80 MVAR Line reactors (Switchable) at Mothihari end (with 600 ohm NGR) for Barh-Mothihari section		8
(vi) 2x50 MVAR Line reactors (fixed) at Mothihari end (with 400 NGR) for Mothihari-Gorakhpur section		7
Estimated cost (Rs crores)		540

- Ministry of Power in its Gazette Notification dated October 08, 2012 did not include the scope mentioned at (iii) to (vi) above and also the details of the substation at (i) & (ii) was also not included.
- Letter was written to MoP on October 17, 2012 bringing out the discrepancy and requesting to issue the corrigendum to the Gazette Notification.
- SPV in the name of "Darbhanga - Motihari Transmission Company Limited" incorporated on December 18, 2013.
- Ministry of Power vide letter No. 15/1/2011-Trans dated February 04, 2013 forwarded a copy of Gazette Corrigendum dated January 04, 2013 which included the entire scope.
- RfQ notification published on February 08, 2013 with last date of submission March 25, 2013.